

ABSTRACT

The aim of the invention is to optimize the analysis of substances separated by gas chromatography with a gas chromatograph, comprising a separating device and a mass spectrometer situated down there from. To this end, a detector that detects the separated substances in a nondestructive manner is placed in-line between the output of the separating device and a controllable inlet valve of the mass spectrometer. An evaluating device situated down from the detector evaluates the detector signals and, based on the evaluation, controls the inlet valve for introducing predetermined substances into the mass spectrometer.